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Scandinavian Bowl Carving

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Description :

A brief review of tools and short tutorial on carving bowls in the Scandinavian style

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Woodenware was an essential part of life before metal or plastic goods were commonly available. Bowls and spoons, cups, spreaders, and spatulas - these common wooden articles can be found in all societies and cultures. Although there are other methods of making woodenware such as turning or burning, by far the most common method was to carve them from green wood. Green wood carving does not require any power tools, so the tool costs are relatively low. Hand tools are quiet and portable which makes carving bowls a perfect activity for the garden or campsite.

This two part article will review the tools used to carve common wooden kitchen utensils in Scandinavian peoples of northern Europe. Part 1 will discuss the green woodworking tools and techniques for making bowls and troughs. Part 2 (Link Part 2) will discuss the tools and techniques for carving spoons and ladles in the Scandinavian style. A future article will discuss the tools of the American Indian people. I have decided to focus on these two cultures because of my interest in these peoples in general, but I hope that others will provide similar discussions based on other cultures.

Bowl Carving Tools of Scandinavia

The tools for making bowls and troughs in the Scandinavian style are generally quite simple. The exterior of the bowls are carved primarily with an ax, and most of the hollowing is done with an adze. A few gouges and a spokeshave or block plane are all that is required for the final smoothing.

The carving axe

The axe is one of the primary tools in traditional Scandinavian woodworking crafts. They are used at nearly every stage, from cutting the tree to shaping the final product. The carving axe (or hewing hatchet, as it is also called) is a specialized axe used roughly shape blanks and to make the slicing cuts that help refine the shape. Good quality, commercially made axes and hatchets can be used as carving axes, if they are sharpened properly. However, Wille Sundquist highlights some ideas on what makes a superior axe for carving in his book *Swedish Carving Techniques* .

The head of a carving axe must be of good steel, of course. But the design is also important. First, the edge must be long enough to cut efficiently. A curved edge, especially one that extends above the top of the handle, will cut more efficiently. Second, the design of the axe must accommodate a variety of grips. The bearded style blade allows the user to grip the axe beneath the edge, which allows very controlled cuts. A curved haft also helps to align the blade for good slicing cuts. Third, the edge must be sharpened correctly. A wide, flat bevel on the one side of the blade allows a blade to hew more accurately than a narrowly ground or convexed bevel. Wille Sundquist recommended that the blade be sharpened at an angle of 24-30 degrees, depending on the quality of the steel and the hardness of the wood. Finally, the axe should be heavy enough to cut away large amounts of wood.

The photos below show a mixture of modern style axes and traditionally shaped Scandinavian axes.



Two large axes for carving The top axe is from Ragweed forge, the bottom one is a large hunters axe from Wetterlings SA.

The upper axe has a long edge and is sharpened to a wide bevel. The bearded blade allows you to choke up on it as well. Unfortunately, this axe is no longer available.



Three smaller carving axes Gransfors Bruks Swedish carving axe (at top), Woodcraft Scandinavian carving axe (middle), and Wetterlings small hunter (bottom). All three are fine axes for carving, but the upswept blade and heavier head make the GB better for heavy work.

The Gransfors Bruks Swedish carving axe and Woodcraft Scandinavian carving axe have all the criteria for an excellent carving axe. The blades are long (4.3 to 5 inches, or 108 to 125 cm), and the edge curves above the haft to allow for nice long slicing cuts. The bearded blade allows your hand to get behind the blade, and the curved haft allows a variety of grips. The GB is sharp out of the box and has been ground with a wide flat bevel on one side to allow for accurate hewing. The Woodcraft axe came with narrow, steep bevels. It required substantial work to put the edge in proper condition, even after a sharpening by Woodcraft.

The GB is also has a substantial bit (2 pounds, 900 grams). While this weight makes for easier roughing, it can be a

handful for smaller work. The Woodcraft axe is lighter (approximately 1.5 pounds, or 675 grams), and so it excels at smaller detail work. Either one makes a fine all around carving axe, but unless you can get the Woodcraft axe on closeout as I did (\$82US), the Gransfors Bruks is a better deal at around \$115US vs \$134US for the Scandinavian carving axe.

The Wetterlings small hunter has a shorter edge (3 inches, or 7.5 cm) aligned below the top of the haft, so slicing cuts are shorter than the specialized carving axes. However, the handy size of this axe, fine hand-forged steel blade, and reasonable price make it a fine axe for carving smaller bowls, ladles and spoons as well as for general camp use. This is a quality tool and an excellent value.

The Hollowing Adze

In simplest terms, an adze is an ax with the blade perpendicular to the handle. Blades can be either flat (for surfacing) or curved like a gouge for hollowing. The adzes discussed in this article are the curved adzes, which are used to hollow the interior of bowls.

The photos below show two Scandinavian style hollowing adzes from Woodcraft. Prices in the Woodcraft catalog run from about \$120US to \$140US, but I got mine on clearance from the Woodcraft website, and they were \$70US and \$82US, respectively. They are a good deal, in my opinion. Gransfors Bruks make a very similar hollowing adze, but the handle lacks the horns of the two Woodcraft tools. I am very tempted to try one of the GB adzes, but the cost of this tool here in the US is well over \$200US - beyond my meager means.



Woodcraft adzes Larger bowl adze at top, smaller cup adze at bottom.



Woodcraft adzes - front view

Woodcraft calls the larger of the two a standard bowl adze, and the other a small bowl adze. The larger adze is approximately 9 inches (22.5 cm) long, and the head is 6 inches (15 cm) long. The edge is curved to roughly a #9 sweep and is 1 and $\frac{3}{4}$ inches (45 mm) wide. The handle and blade angles (along with the curved head) combine to make a good tool for larger troughs, but somewhat limited for smaller bowls.

The smaller adze is approximately 5.5 inches (14 cm) long. The head is 5.5 inches (14 cm) long and 1 and $\frac{1}{8}$ inches (28mm) wide, with a sweep of approximately #8. The smaller adze would make this a good tool for roughing out small bowls or Scandinavian style cups (kosas or kuksa).

Both of these adzes have a poll on the back that is designed to be struck with a mallet. This allows you to use the adze as a gouge for more precise work. I think this is a handy feature.

Sharpening the adze

The Woodcraft adzes are well made, and the steel seems to be of good quality. As with the carving axe, the edge as provided by Woodcraft is too blunt for my taste, and was ground but not polished. If you decide to purchase these adzes from Woodcraft, expect to spend some time reprofiling and sharpening them.

I used a two step process to get the edges into shape. First, I reground the bevels using the 80 grit flat wheel on my 1x30 grinder. Then I smoothed the blade on 150 grit belt. I finished sharpening with a 15 micron belt that produces a nice mirror finish. It is important to cool the blade frequently in water to prevent losing the temper of the tool. It is also important to check the grind angles and cutting ability of the edge frequently while you are sharpening - a bevel guide (to measure the angle of the edge) would be a handy tool for this task. The total time to sharpen the two adzes was about an hour and a half, split over several sessions. Considering the modest initial cost of these tools, this seems like a reasonable investment in time.

Other modifications

I had considered removing the horns at the end of the handle, but I have decided to keep them on, at least for the

present. They can get in the way a little bit, but the horn in the front provides a good grip for your fingers, and the horn at the back does a fine job keeping the tool in your hand. Overall it appears to be a good design.

Finishing tools

A variety of tools are required for finishing the bowls and truing the surfaces. Gouges are used to finish up the hollow portion of the bowl. Sundquist recommends two gouges - one with a very curved profile (around an 8 sweep) and the other gouge with a flatter (a #5) sweep. The gouges should be between $\frac{3}{4}$ inch and 1 inch (18 to 25mm) in width. The more curved gouge is used for final hollowing, and the flatter gouge is used to smooth the interior surface. The final finishing of the bowl interior is done with various grades of sandpaper, or the toolmarks can be left in place for a hand-worked appearance.



Gouges Deeply curved and flat gouges by Henry Taylor Tools, Ltd., Sheffield, England.

Many tools may be used to true up the flat top of the bowl, and to shape the bowl's exterior. The most common of these are a drawknife (either in the traditional European/American pattern or a Swedish push knife), spokeshave, and block plane.



Finishing tools Top to bottom: metal and wood spokeshaves, Frosts splitting knife, drawknife, and block plane at top right.

The Swedish push knife (or shingle knife) works quite well. These are readily available here in the US and are quite inexpensive (from \$20 to \$30US). Mine has slightly larger handles, and a laminated steel blade. In his video, Jogge Sundquist uses a drawknife with a slightly curved profile, rather like a wide, shallow gouge. This curved drawknife appears to work very well, but I have not been able to find one yet. An inshave or a scorp would also work for this task, but a standard drawknife and the gouges described above make a very usable substitute.

Carving a bowl

Carving a bowl can be divided into four phases: roughing out the blank; hollowing the interior; refining the shape of the outside; and finishing. Before we go onto these aspects, a few words about the work area and safety gear are in order.

The setup

Something to hold the work is essential, but the setup need not be complicated. The simple clave shown below works well and took only about 5 minutes to assemble. Make the opening in the clave larger than the largest piece you intend to work, and fill the space with scrap wood or wedges. Peg holes could also be added to hold the sides of the blank.



Simple Clave This simple clave holds the bowl blank. I use small wedges to get a really tight fit.

Safety gear and safe work habits

Some sort of safety gear is essential for carving. At minimum, hand and eye protection should be worn.



Safety gear Some safety gear is essential - a leather apron and heavy gloves to protect from cuts and safety glasses to protect the eyes.



Viking safety gear? This mail glove may be period correct, but the typical carver would be better served with one of the modern, lightweight steel mesh gloves!

Some rules for safe woodworking.

" Wear appropriate safety gear!

" Woodworking tools are potentially dangerous. Do not work if you are tired or upset.

" Keep your eyes on the tool and the work at all times.

" Make sure that any missed stroke will hit the carving block rather than you.

" Keep your leg well back from the block.

" When holding the blank with your hands, wear gloves and keep your hand well above the middle of the blank.

" Make sure all cuts are at the middle of the blank or lower. Turn the work as needed to work on both sides.

Now on to the carving!

Roughing



Split the blank Find some green wood to use as a blank. This is cherry salvaged from a neighbor's yard.

Bowl blank Remove the bark and curved outer portion of the log.



Medieval style axe Flatten the bottom and sides of the blank. Here I used a Medieval style axe from Ragweed Forge.



Mora splitting knife Continue to flatten the bottom and sides of the blank. The Mora splitting knife is useful this. hollowing

The initial hollowing is done with the adze.



Adze work Here is the adze with a blank that cracked and was discarded.



Measure 1 Measure the outside ...



measure 2 ... and the inside frequently to make sure that the bottom is not getting too thin.



More hollowing with a gouge Make the inside deeper and smoother with gouges.

Note that using the mallet can leave a choppy surface. Pushing the chisel by hand produces a smoother finish - this means less work to do when finishing the surfaces.

Refining the outside shape



Mark the outside angles for cutting.



Outside roughed Slope the ends ...



Exterior ready for final shaping Here I have hollowed the ends a bit with gouges to form the handles.

Now continue shaping with gouges, plane, and drawknife.

Insert final rough.



Exterior Here the exterior is shaped with a gouge.



Nearly done Here the carving is complete and the bowl is ready for drying and sanding.

Finishing

Now that the carving is done, the blank must be dried. You can use various methods - Sundquist describes several methods of slowing drying to avoid cracking the blank. One method is to wrap the blank in newspapers and place the whole thing in a plastic bag. The bag should be turned inside out every day for the first few weeks. This does slow down the drying, but tends to make the blank grow mold, which can stain the wood. I tried this but abandoned it after the first week. The mold was just too nasty.

Another method to avoid cracking is to rub the blank with boiled potato. This has worked well for me with spoons, but did not work for this particular cherry blank. The resulting crack will be filled with a mixture of sanding dust and glue. This should work fine, since the bowl is not meant to hold liquids. Next time I will try drying the bowl in sawdust.

To finish off the bowl, smooth the inside and outside surfaces. The spokeshave and block plane are used on the

outside, and sandpaper or a furniture scraper on the inside. If you decide to sand, use the cloth backed sandpaper rather than the paper backed. I believe it will work much better and last longer. I opted to use a furniture scraper for the inside and leave the outside as carved.



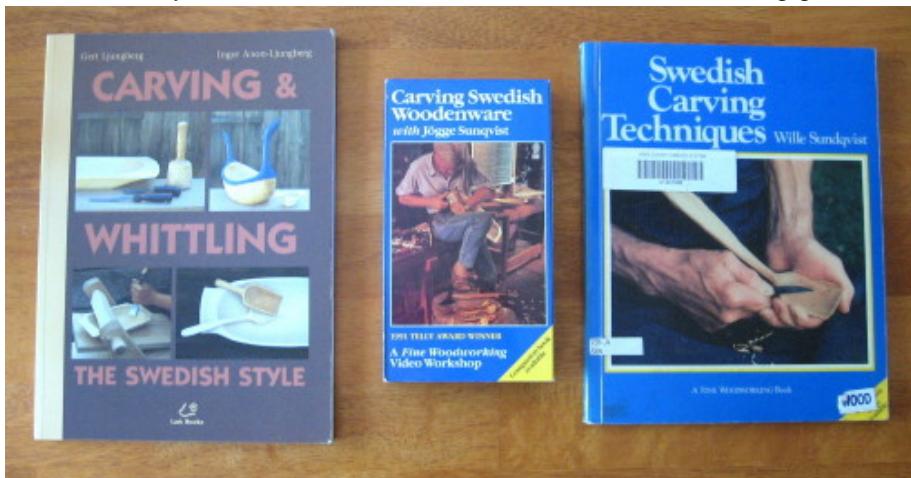
Final bowl Scraped and sanded, ready for the final finish.

Finally, finish the bowl with a foodsafe finish. I used walnut oil.

I spent about 12 hours making this bowl. A similar (and probably much better carved) wooden bowl could likely be bought for around \$20 - \$30 USD. As you can see, it is not very cost effective. It is however, very, very satisfying. Working green wood with hand tools really puts you in touch with the out of doors. I encourage you to give this type of project a try.

References

Searching the stacks at the local library and the internet led me to the works of Wille and Jogge Sundquist (also spelled Sundqvist), and Gert and Inger A:son-Ljungberg. The books by these authors layout a complete course for carving woodenware in the Scandinavian style, from the materials and tools to use, techniques, safety, and though finishing and final decoration. They are a treasure trove for those interested in working green wood.



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"Swedish Carving Techniques" by Wille Sundqvist (Taunton Press, 1990, ISBN 0-942391-45-4). The original title is "Talja med kniv och yxa".

The companion video is called "Carving Swedish Woodenware" (Jogge Sundqvist, Taunton Press, 1990, ISBN 0-942391-34-9).

"Carving & Whittling: The Swedish Style" by Gert Ljungberg and Inger A:son-Ljungberg (Lark books, 1998, ISBN 1-887374-40-x).

Detailed reviews will be provided in the second part of this article.

Another resource that readers should look for is: "Sculpting Traditional Bowls" by Rip and Tammy Mann (Schiffer Pub., 1994, ISBN 088740698X). This short book has little text, but captioned photographs show the entire bowl carving process step by step. An excellent resource.

Links

Woodcraft

A good source for quality woodworking tools including Gransfors Bruks axes, gouges, drawknives and spokeshaves. Woodcraft is also the retailer of the Scandinavian carving axe and bowl adzes reviewed in this article.

Country workshops

Drew Langsner provides another source of high quality Scandinavian style tools. The selection includes all of the tools required for making bowls or spoons, books, plans, videos, and more besides. Instructional classes are also offered.

Ragweed Forge

Ragweed Forge good source for the Mora splitting knives and Wetterlings brand Swedish axes discussed in this article. They are also an excellent US based source for both Scandinavian knives and bare blades. Ragnar (the owner) provides good prices, fast shipping, and excellent customer service. I recommend him highly.